



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,789	06/29/2001	Marcos Nogueira Novaes	YOR920010315US1	4577

48150 7590 09/29/2006

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC  
8321 OLD COURTHOUSE ROAD  
SUITE 200  
VIENNA, VA 22182-3817

EXAMINER

LY, ANH

ART UNIT PAPER NUMBER

2162

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,789

Applicant(s)

NOVAES, MARCOS NOGUEIRA

Examiner

Anh Ly

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 1,18-21,23,40-43,46 and 52-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-17,22,24-39,44,45 and 47-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/03&amp;06/09/06</u> | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office action is response to Applicant's AMENDMENT filed on 07/20/2006.
2. Claims 1, 18-21, 23, 40-43, 46 and 52-55 have been cancelled.
3. Claims 2-17, 22, 24-39, 44-45, and 47-51 are pending in this application.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

The claims 2-17, 22, 24-39, 44, 45, and 47-51 are rejected under 35 U.S.C. 101.

The claimed invention is abstract idea, which is not "real world" results. The claims are not producing tangible results due to performing mathematical processes, the processes consisting solely of mathematical operations do not manipulate appropriate subject matters. (Benson, 409 U.S. at 71-72, 175 USPQ at 676). Thus, the type of mathematical subject matter does not entitle to patent protection or cannot constitute a statutory process.

5. Also, claims 45 and 47, a computer-readable medium as in specification (page 43 or section 0208 of patent publication application (Pub. No.: US 2003/0004996 A1)) is a signal-bearing media including transmission media such as digital and analog and communication links and wireless, from which is also non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which does not enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Because at the same time traversing by using hypertext link and by not using hypertext links, it cannot do simultaneously.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2162

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2-10, 22, 24-32, 44, 45 and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No.: US 2003/0130998 A1 of Fox et al. (hereinafter Fox) in view of Pub. No.: US 2003/0177111 A1 of Egendorf et al. (hereinafter Egendorf).

With respect to claim 2, Fox teaches a computer-implemented method of indexing data blocks according to a collection of subject words of the data blocks (an automated information retrieval and visualization systems for document database and displaying n-dimensional of keywords or subject words having indexed, each is a data block: abstract, paragraphs: 0009, 0012-0014 and 0016-0019 and fig. 2a and paragraph 0084), comprising:

constructing a N-dimensional coordinate space, wherein N is a cardinality of the collection of subject words of the data blocks (creating context vector representations for each keyword, topic or subject found in the searches: paragraphs 0054, 0018-0019, 0055, 0104; also see figs. 12 and 13, paragraphs 0054-0055).

Fox teaches indexing document database and constructing vector space for keyword in the searches and building a N-dimensional vector space for N keyword to be retrieved from a document. Fox does not clearly teach traversing data block links leading to discovery of cross-subject affinities.

However, Egendorf teaches traveling information or data of document's rank, that is the closer it will be placed to the beginning of the result list based on the count of the terms in the document for getting the affinity (sections 0036, 0057 and 0060).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Fox with the teachings of Egendorf. One having ordinary skill in the art would have found it motivated to utilize the use of traveling or traversing information to find out an affinity group the affinity as disclosed (Egendorf's section 0036 and 0060), into the system of Fox for the purpose of searching for information in a plurality of information sources and searching databases on the Internet, thereby, solving the problem of finding current information in an increasingly broad, large scale in the Internet network (Egendorf's sections 0001-0002 and 0052).

With respect to claim 3, Fox teaches determining a closeness of any two data blocks in said database (sections 0019, 0053 and 0074-0084).

With respect to claim 4, Fox teaches wherein said determining is performed according to an equation comprising where  $D$  is a data block and  $p_1, p_2$  are points in the  $N$ -dimensional space and  $S$  is a summation (paragraphs: 0051-0055 and 0057-0068).

With respect to claims 5 and 9, Fox teach a method of indexing data blocks according to a collection of subject words of the data blocks as discussed in claim 1. Also closer proximity of terms in documents (section 0059).

Fox teaches indexing document database and constructing vector space for keyword in the searches and building a  $N$ -dimensional vector space for  $N$  keyword to be retrieved from a document. Fox does not clearly teach affine documents.

However, Egendorf teaches traveling information or data of document's rank, that is the closer it will be placed to the beginning of the result list based on the count of the terms in the document for getting the affinity (sections 0036, 0057 and 0060).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Fox with the teachings of Egendorf. One having ordinary skill in the art would have found it motivated to utilize the use of traveling or traversing information to find out an affinity group the affinity as disclosed (Egendorf's section 0036 and 0060), into the system of Fox for the purpose of searching for information in a plurality of information sources and searching databases on the Internet, thereby, solving the problem of finding current information in an increasingly broad, large scale in the Internet network (Egendorf's sections 0001-0002 and 0052).

With respect to claim 6, Fox teaches wherein all dimensions of said N-dimension coordinate space are considered (vector representations for keywords: paragraphs 0054-0057).

With respect to claim 7, Fox teaches wherein said data blocks comprise documents, said method further comprising building a term-by-document matrix and using all of the terms in N-dimensions in the coordinate space (paragraphs 0014, 0051 and 0054-0055).

With respect to claim 8, Fox teaches utilizing a column term in the term-by-document matrix as a vector (abstract, fig. 2a, paragraphs 0045, 0051 and 0054-0055).

With respect to claim 10, Fox teaches building a proximity list for each data block (paragraphs 0059 and 0065).

With respect to claim 22, Fox teaches a method for indexing database (paragraphs: 0201 and 0212), comprising:

constructing a coordinate system (extracting or retrieving N keywords from a document in order to build or generate a N-dimensional vector space: paragraphs 0018, and 0030-0033); and

mapping documents of said database into the coordinate system to determine a physical closeness of first and second documents of said database (sections 0017, 0019, 0053 and 0074-0084; also section 0059).

Fox teaches indexing document database and constructing vector space for keyword in the searches and building a N-dimensional vector space for N keyword to be retrieved from a document. Fox does not clearly teach traversing data block links leading to discovery of cross-subject affinities.

However, Egendorf teaches traveling information or data of document's rank, that is the closer it will be placed to the beginning of the result list based on the count of the terms in the document for getting the affinity (sections 0036, 0057 and 0060).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Fox with the teachings of Egendorf. One having ordinary skill in the art would have found it motivated to utilize the use of traveling or traversing information to find out an affinity group the affinity as disclosed (Egendorf's section 0036 and 0060), into the system of Fox for the purpose of

searching for information in a plurality of information sources and searching databases on the Internet, thereby, solving the problem of finding current information in an increasingly broad, large scale in the Internet network (Egendorf's sections 0001-0002 and 0052).

Claim 24 is essentially the same as claim 2 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 25 is essentially the same as claim 3 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 26 is essentially the same as claim 4 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 27 is essentially the same as claim 5 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 5 hereinabove.

Claim 28 is essentially the same as claim 6 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 6 hereinabove.

Claim 29 is essentially the same as claim 7 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

Claim 30 is essentially the same as claim 8 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 8 hereinabove.

Claim 31 is essentially the same as claim 9 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 9 hereinabove.

Claim 32 is essentially the same as claim 10 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 10 hereinabove.

With respect to claim 44, Fox teaches constructing a coordinate system and a collection of subject words, such that said coordinate system comprises an N-dimensional coordinate space, wherein N is a cardinality of the collection of subject words, a physical closeness of first and second documents of said database, a determining unit for determining a closeness of any two data blocks in said database, a measuring unit for measuring a distance function between data blocks, wherein a document can be added to the coordinate system without impacting a measured of any other document (extracting or retrieving N keywords from a document in order to build or generate a N-dimensional vector space: paragraphs 0018, and 0030-0033; sections 0017, 0019, 0053 and 0074-0084; also section 0059; measurement and distance of documents or data blocks: sections 0004, 0009, 0052-0057 and 0090-0094).

Fox teaches indexing document database and constructing vector space for keyword in the searches and building a N-dimensional vector space for N keyword to be

Art Unit: 2162

retrieved from a document. Fox does not clearly teach an affinity between two data blocks.

However, Egendorf teaches traveling information or data of document's rank, that is the closer it will be placed to the beginning of the result list based on the count of the terms in the document for getting the affinity (sections 0036, 0057 and 0060).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Fox with the teachings of Egendorf. One having ordinary skill in the art would have found it motivated to utilize the use of traveling or traversing information to find out an affinity group the affinity as disclosed (Egendorf's section 0036 and 0060), into the system of Fox for the purpose of searching for information in a plurality of information sources and searching databases on the Internet, thereby, solving the problem of finding current information in an increasingly broad, large scale in the Internet network (Egendorf's sections 0001-0002 and 0052).

Claim 45 is essentially the same as claim 1 except that it is directed to a signal-bearing medium rather than a method, and is rejected for the same reason as applied to the claim 1 hereinabove.

Claim 47 is essentially the same as claim 44 except that it is directed to a signal-bearing medium rather than a method, and is rejected for the same reason as applied to the claim 44 hereinabove.

With respect to claim 48, Fox teaches wherein each data block represents a document and each said document is represented as a vector which has a position in

Art Unit: 2162

the N-dimensional coordinate space of N subject words, such that a relationship is independent of any other document (paragraphs 0054-0055).

With respect to claim 49, Fox teaches wherein each data block represents a document and wherein a document can be added to the coordinate space without impacting a measurement of any other document (paragraphs 0054-0055 and 0107-0109).

Claim 50 is essentially the same as claim 48 except that it is directed to a computer system rather than a computer-implemented method, and is rejected for the same reason as applied to the claim 48 hereinabove.

Claim 51 is essentially the same as claim 49 except that it is directed to a computer system rather than a computer-implemented method, and is rejected for the same reason as applied to the claim 49 hereinabove.

Art Unit: 2162

10. Claims 11-17 and 33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No.: US 2003/0130998 A1 of Fox et al. (hereinafter Fox) in view of Pub. No.: US 2003/0177111 A1 of Egendorf et al. (hereinafter Egendorf) and further in view of Patent No.: US 6,233,571 B1 issued to Egger et al. (hereinafter Egger).

With respect to claim 11-17, Fox in view of Egendorf discloses a method of indexing data blocks as discussed in claim 1.

Fox and Egendorf disclose substantially the invention as claimed.

Fox and Egendorf do not teach a hypertext link, web page, proximity list, a position of visited data block, and an item in the proximity list and hypertext links.

However, Egger teaches hyperlinks (col. 48, lines 46-62); web page, image database (col. 12, lines 40-45); proximity list (proximity indexing method to get order of the list: col. 13, lines 40-50) and a position of a visited data block (col. 13, lines 40-67; col. 15, lines 50-67 and col. 16, lines 12-35 and col. 48, lines 46-62).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Fox in view of Egendorf with the teachings of Egger. One having ordinary skill in the art would have found it motivated to utilize the use of traversing the hypertext links such as hyperlinks document on the web page as disclosed (Egger's col. 48, lines 46-62), into the system of Fox for the purpose of easing user to access and to make useful information available to others, thereby searching for relevant documents over the network and searching for information in a plurality of information sources and searching databases on the Internet, thereby, solving the problem of finding current information in an

Art Unit: 2162

increasingly broad, large scale in the Internet network more efficient (Egendorf's sections 0001-0002 and 0052).

Claim 33 is essentially the same as claim 11 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 11 hereinabove.

Claim 34 is essentially the same as claim 12 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 12 hereinabove.

Claim 35 is essentially the same as claim 13 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 13 hereinabove.

Claim 36 is essentially the same as claim 14 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 14 hereinabove.

Claim 37 is essentially the same as claim 15 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 15 hereinabove.

Claim 38 is essentially the same as claim 16 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 16 hereinabove.

Claim 39 is essentially the same as claim 17 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 17 hereinabove.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: [ANH.LY@USPTO.GOV](mailto:ANH.LY@USPTO.GOV) (**Written Authorization being given by Applicant (MPEP 502.03 [R-2])) or fax to (571) 273-4039 (Examiner's personal Fax No.)**). The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner: Jean Corrielus (571) 272-4032**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: **Central Fax Center: (571) 273-8300**

ANH LY  
SEP. 20<sup>th</sup>, 2006

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER